magnitudes from said conical surface (2) to the center point (P).

5. (Currently amended) A cup-shaped drill head, as set forth in claim ~~2~~ 3, wherein said inner space at the leading end thereof has a rotational inner surface of a mathematically ~~analyzble~~ analyzable function from at least one of said inner conical surface (2) and said inner cylindrical surface to said center point (P).

6. (Original) A cup-shaped drill head, as set forth in claim 5, wherein said rotational inner surface is mathematically of the second order.

7. (Original) A cup-shaped drill head, as set forth in claim 5, wherein said rotational inner surface is a hyperparaboloid with an apex thereof at the center point (P) and has a mathematically smooth transition to at least one of said inner conical surface (2) and said inner cylindrical surface (6).

8. (Original) A cup-shaped drill head, as set forth in claim 5, wherein said rotational inner surface is a hyperellipsoid with a longest radius at said center joint (P) and a mathematically smooth transition to at least one of said inner conical surface (2) and said inner cylindrical surface (6).

REMARKS

Claims 1-8 are in the application and claims 1, 3 and 5 have been amended. In view of the claims objections the amendments to claim 5 have been

made.

Claims 1-8 were rejected under 35 U.S.C. 102(b) as anticipated by Eeles (3,213,951).

EELES (3,213,951)

The Eeles reference discloses a rock drill with socket having a curved surface. The curved surface in the reference is a half ball or dome. There is no indication of the dome 21 having a variable curvature as presently set forth in claim 1, it has only one radius.

In Eeles the curvature of the cup is the same at any point and the curvature of the inner cylindrical surface is zero so that the transaction between them has a high pump of the curvature at the translation. In the applicants' arrangement the pump is of necessity smaller due to the higher curvature at the center point and thus a smaller one near the transaction.

The Examiner's comment that the dome is a hemispherical or semispherical shape does not disclose or suggest a cup base 5 of variable curvature.

In view of the significant differences between applicants' claims and Eeles it is submitted that the claims are allowable and a favorable action is

solicited.

Respectfully submitted,

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